## IN THE CLAIMS:

1. (Currently amended) A microparticle comprising: a polymer selected from the group consisting of a poly(α-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate; a detergent selected from a cationic detergent and an anionic detergent; and an antigen comprising a polynucleotide adsorbed on the surface of said microparticle,

wherein said microparticle is formed by a process that comprises: forming a microparticle comprising said polymer and said detergent, said microparticle being formed in the presence of said detergent; and exposing said microparticle to said antigen.

- 2. (Cancelled)
- 3. (Previously Presented) The microparticle of claim 1, further comprising an additional biologically active macromolecule encapsulated within said microparticle, wherein the additional biologically active macromolecule is selected from a polypeptide, a polynucleotide, a polynucleoside, an antigen, a hormone, an enzyme, and an immunological adjuvant.
- 4. (Previously Presented) The microparticle of claim 1, wherein the poly(α-hydroxy acid) is selected from poly(L-lactide), poly(D,L-lactide) and poly(D,L-lactide-coglycolide).
- 5. (Previously Presented) The microparticle of claim 1, wherein the polymer is poly(D,L-lactide-co-glycolide).
- 6-8. (Cancelled)
- 9. (Currently Amended) The microparticle of claim 1, wherein said polynucleotide encodes a polypeptide the antigen is selected from an HIV gp120 antigen, an HIV gp160

antigen polypeptide, an HIV p24gag-antigen polypeptide, an HIV p55gag-antigen polypeptide, and an Influenza A hemagglutinin-antigen polypeptide.

- 10. (Currently amended) The microparticle of claim 1, wherein the antigen comprises a said polynucleotide which encodes an HIV gp120-antigen polypeptide.
- 11. (Previously Presented) The microparticle of claim 3, wherein the additional biologically active macromolecule is an immunological adjuvant.
- 12. (Previously Presented) The microparticle of claim 11, wherein the immunological adjuvant is an aluminum salt.
- 13. (Currently amended) A microparticle composition comprising a microparticle of any of claims 1-7 and 9-12 1, 3-5 and 9-12 and a pharmaceutically acceptable excipient.
- 14. (Currently amended) A microparticle composition comprising a microparticle according to any of claims 1, 2, 4 7, 9 and 10 1, 4, 5, 9 and 10, a pharmaceutically acceptable excipient, and an immunological adjuvant.
- 15. (Previously Presented) A microparticle composition of claim 14, wherein the immunological adjuvant is selected from CpG oligonucleotides, E. coli heat-labile toxin-K63 (LTK63), E. coli heat-labile toxin-R72 (LTR72), monophosphorylipid A (MPL), and an aluminum salt.
- 16. (Previously Presented) A microparticle composition of claim 15, wherein the aluminum salt is aluminum phosphate.
- 17-42. (Canceled).

43. (Currently amended) A microparticle comprising: a biodegradable polymer; a detergent selected from a cationic detergent and an anionic detergent; and an antigen comprising a polynucleotide adsorbed on the surface of said microparticle,

wherein said microparticle is formed by a process that comprises: forming a microparticle comprising said polymer and said detergent, said microparticle being formed in the presence of said detergent; and exposing said microparticle to said antigen.

- 44. (Cancelled)
- 45. (Currently amended) The microparticle of elaim 44 claim 43, further comprising an additional biologically active macromolecule encapsulated within said microparticle, wherein the additional biologically active macromolecule is selected from a polypeptide, a polynucleotide, a polynucleoside, an antigen, a hormone, an enzyme, and an immunological adjuvant.
- 46. (Currently amended) A microparticle composition comprising a microparticle of any of claims 43 and 45 43 45 and a pharmaceutically acceptable excipient.
- 47. (Currently amended) A microparticle composition comprising a microparticle according to any of claims 43 and 44\_45, a pharmaceutically acceptable excipient, and an immunological adjuvant.

48-55. (Canceled)

- 56. (Currently amended) The microparticle of-elaim 54 any of claims 1, 3-5 and 9-12, wherein the antigen comprises said polynucleotide is a plasmid DNA molecule.
- 57. (Currently amended) The microparticle of elaim 54 any of claims 1, 3-5, 11 and 12, wherein the polynucleotide encodes a polypeptide selected from HIV polypeptides, hepatitis B virus polypeptides, hepatitis C virus polypeptides, Haemophilus influenza

type B polypeptides, pertussis polypeptides, diphtheria polypeptides, tetanus polypeptides, and influenza A virus polypeptides.

58. (Currently amended) The microparticle of <u>claim 6 claim 1</u>, wherein the cationic detergent is hexadecyltrimethylammonium bromide.

59-68. (Canceled).

- 69. (Currently amended) The microparticle of any of claims 1, 2, 3, 4, 5, 6, 7 and 11 1, 3-5, 9-12 and 58, wherein said antigen is not entrapped within said microparticle does not comprise an entrapped antigen.
- 70. (Currently amended) The microparticle of any of claims 1, 2, 3, 4, 5, 6, 7 and 11 1, 3-5, 9-12 and 58, wherein said microparticle is formed in a double emulsion process.
- 71. (Currently amended) The microparticle of any of claims 1, 2, 3, 4, 5, 6, 7 and 11 1, 3-5, 11, 12 and 58, wherein the polynucleotide encodes a polypeptide said antigen is derived from a pathogenic organism.
- 72. (Previously Presented) The microparticle of claim 71, wherein said pathogenic organism is a bacterium.
- 73. (Previously Presented) The microparticle of claim 71, wherein said pathogenic organism is a virus.

74-76. (Cancelled)

77. (Currently amended) The microparticle of any of claims 1, 2, 3, 4, 5, 6, 7 and 11 1, 3-5, 9-12 and 58, wherein the microparticle has a diameter between 500 nanometers and 10 microns.

- 78. (Currently amended) The microparticle of any of claims 2, 3, 6, 7, and 11 3, 9-12 and 58, wherein the polymer is poly(D,L-lactide-co-glycolide).
- 79. (Previously Presented) The microparticle composition of claim 13, wherein said microparticle composition is an injectable composition.
- 80. (Previously Presented) The microparticle composition of claim 14, wherein said microparticle composition is an injectable composition.
- 81. (Currently Amended) A microparticle composition comprising a microparticle of elaim 52 claim 56 and a pharmaceutically acceptable excipient.
- 82. (Previously Presented) The microparticle composition of claim 81, wherein said microparticle composition is an injectable composition.
- 83. (Currently Amended) A microparticle composition comprising a microparticle of elaim 53 claim 77 and a pharmaceutically acceptable excipient.
- 84. (Previously Presented) The microparticle composition of claim 83, wherein said microparticle composition is an injectable composition.
- 85. (Currently Amended) A microparticle composition comprising a microparticle of claim 54 claim 78 and a pharmaceutically acceptable excipient.
- 86. (Previously Presented) The microparticle composition of claim 85, wherein said microparticle composition is an injectable composition.
- 87. (Previously Presented) A microparticle composition comprising a microparticle of claim 57 and a pharmaceutically acceptable excipient.

- U.S. Serial No. 09/581,772
- 88. (Previously Presented) The microparticle composition of claim 87, wherein said microparticle composition is an injectable composition.
- 89. (Previously Presented) A microparticle composition comprising a microparticle of claim 71 and a pharmaceutically acceptable excipient.
- 90. (Previously Presented) The microparticle composition of claim 89, wherein said microparticle composition is an injectable composition.
- 91. (Currently amended) The microparticle of any of claims 1, 2, 3, 4, 5, 6, 7 and 11 1, 3, 4, 5, 11 and 12, wherein said antigen is polynucleotide encodes a polypeptide derived from a tumor antigen.
- 92. (Previously Presented) A microparticle composition comprising a microparticle of claim 91 and a pharmaceutically acceptable excipient.
- 93. (Previously Presented) The microparticle composition of claim 92, wherein said microparticle composition is an injectable composition.
- 94. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 13, and administering said microparticle composition to a vertebrate animal.
- 95. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 14, and administering said microparticle composition to a vertebrate animal.
- 96. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 46, and administering said microparticle composition to a vertebrate animal.

- 97. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 47, and administering said microparticle composition to a vertebrate animal.
- 98. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 81, and administering said microparticle composition to a vertebrate animal.
- 99. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 83, and administering said microparticle composition to a vertebrate animal.
- 100. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 85, and administering said microparticle composition to a vertebrate animal.
- 101. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 87, and administering said microparticle composition to a vertebrate animal.
- 102. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 89, and administering said microparticle composition to a vertebrate animal.
- 103. (Previously Presented) A method of raising an immune response, comprising: providing the microparticle composition of claim 92, and administering said microparticle composition to a vertebrate animal.
- 104. (New) The microparticle composition of claim 46, wherein said microparticle composition is an injectable composition.

105. (New) The microparticle composition of claim 47, wherein said microparticle composition is an injectable composition.